



The City of Danbury, CT

Sealed Bid Request

BID TITLE: Bid #05-20-21-02 "Cleaning of Boilers – Public Buildings"

DATE BID OPENING: Tuesday, June 8, 2021

TIME: 10:00 AM

LOCATION: Purchasing Department, City Hall, 155 Deer Hill Avenue, Danbury, CT 06810

Bid Bond or Certified Check required with bid: 5%

Performance Bond required if awarded bid: Not Applicable

The City of Danbury reserves the right to accept or reject any or all bids or any portion thereof, to waive technicalities, and to award the contract as deemed to best serve the public interest.

Omit State and Federal Taxes

All prices must be FOB Destination (Danbury, CT) unless otherwise specified

Dated in Danbury: May 5, 2021

Purchasing Agent

Charles J. Volpe, Jr.

Pursuant to and in accordance with the Invitation to Bid, Instructions to Bidders, and specifications relating thereto, the undersigned hereby offers to furnish all materials, labor, equipment, tools, supplies and other facilities and means necessary or proper for the cleaning and/or required repairs described in the specifications, for the prices listed below:

Complete accompanying proposal pages

Company: _____

Phone: _____

Address: _____

Fax: _____

E-mail: _____

Submitted By (signature): _____

Payment Terms: _____

Signed By (print/type): _____

Title: _____

Dated: _____

Bid #05-20-21-02 "Cleaning of Boilers – Public Buildings"

FOR BUDGET PURPOSES, COST PER LOCATION MUST BE DETAILED BELOW

LOCATION	TYPE	QTY	UNIT COST	TOTAL
Danbury High School	Smith 650 Mills sectional	3	\$ _____	\$ _____
DHS Auto Shop (F Building)	Peerless gas boiler #64-10SPRK-W/S	1	\$ _____	\$ _____
DHS Freshman Wing (G Building)	AERCO gas cond. Boiler #BMK15600	2	\$ _____	\$ _____
Rogers Park Middle School	Smith 28HE-16	3	\$ _____	\$ _____
Great Plain School	Smith 28A-8	2	\$ _____	\$ _____
Hayestown School	Smith 28A-17	2	\$ _____	\$ _____
Broadview Middle School	Smith 450 Mills	2	\$ _____	\$ _____
King Street Primary School	Smith 28HE-11	2	\$ _____	\$ _____
King Street Intermediate School	Smith 28HE-11	2	\$ _____	\$ _____
Mill Ridge Primary School	Smith Series 28A-12	1	\$ _____	\$ _____
Mill Ridge Primary School	Smith 350 Mills	1	\$ _____	\$ _____
Mill Ridge Intermediate School	Smith mills 450	2	\$ _____	\$ _____
Educational Services Center	Smith 19A-SW-7	1	\$ _____	\$ _____
Park Avenue School	Smith 28HE-15	2	\$ _____	\$ _____
Park Avenue School	Wall Hung Lochnivar WHN-199	1	\$ _____	\$ _____
Pembroke School	Smith 28A-13	1	\$ _____	\$ _____
Pembroke School	Smith 28HE-13	1	\$ _____	\$ _____
Ellsworth Avenue School	Smith Series 28	2	\$ _____	\$ _____
Shelter Rock School	Smith 28A-SW-8	1	\$ _____	\$ _____
South Street School	Smith 28A-6	2	\$ _____	\$ _____
Morris Street School	Smith 28A-7	2	\$ _____	\$ _____
Western CT Academy of Int'l Studies	Smith Series 28A	2	\$ _____	\$ _____
Library	Smith 28HE-18	2	\$ _____	\$ _____
Police Department	Smith 28A-9	2	\$ _____	\$ _____
Police Department – Water Heater	PVI -750N 400 A-TPGO	1	\$ _____	\$ _____
Fire Department Headquarters	Smith 28A-9	1	\$ _____	\$ _____
City Hall	Smith 28A-16	1	\$ _____	\$ _____
City Hall	Crest Lochinvar	1	\$ _____	\$ _____
Hatters Park Office	Smith 19HE-7	1	\$ _____	\$ _____
Beaver Brook Administration Bldg	Hydrotherm Pack MR-750C	1	\$ _____	\$ _____
Locust Avenue ACE	Smith Series 19S	1	\$ _____	\$ _____
Locust Avenue ACE	Lochinvar KBN501	1	\$ _____	\$ _____
Union Station Museum	Burnham 1806BWINI30	1	\$ _____	\$ _____
Metro North	Lochinvar Knight	1	\$ _____	\$ _____
Metro North	Weil McLain HE2-5	1	\$ _____	\$ _____
Miry Brook (Civil Preparedness)	oil –fired forced hot air	2	\$ _____	\$ _____
Parks & Rec Garage-Lions Way	Burnham Gas 807B-W	1	\$ _____	\$ _____
West Lake Treatment Plant	gas	5	\$ _____	\$ _____
Margerie Plant	oil	1	\$ _____	\$ _____
Sewer Treatment Plant:				
Septic Bldg	Burnham oil	1	\$ _____	\$ _____
Garage	oil	1	\$ _____	\$ _____
Digester Bldg	#2 gas & methane	1	\$ _____	\$ _____
Dewatering Bldg	gas & methane	1	\$ _____	\$ _____
Chlorine Bldg	oil	1	\$ _____	\$ _____
Old Library	Lochinvar Knight XL	2	\$ _____	\$ _____
Old Jail	Lochinvar Knight XL	1	\$ _____	\$ _____
Veterans Hall	Lochinvar Knight	1	\$ _____	\$ _____
Farrington – Chow House	Pierless WBV-03WPCTL	1	\$ _____	\$ _____
Farrington – Main House	Burnham PV7ST-HCUR	1	\$ _____	\$ _____
Public Buildings #5	Smith Mills 2000L	1	\$ _____	\$ _____
			LUMP SUM TOTAL	\$ _____

BIDDER _____

EXCEPTIONS

Page #	Paragraph	Item Description & Alternate Proposal

REFERENCES

List Below at least five (5) references for similar projects, including all information requested. THIS PAGE MUST BE COMPLETED. If Bidders wish to keep their references confidential, this page may be removed from the bid package and submitted with the bid in a separate sealed envelope marked "REFERENCES – CONFIDENTIAL". The City of Danbury is not responsible for maintaining the confidentiality of the references unless this procedure is followed.

1) Client _____
Project Address _____
Approximate \$ Value _____ Date: Started _____ Completed _____
Contact: Name _____ Telephone # _____

2) Client _____
Project Address _____
Approximate \$ Value _____ Date: Started _____ Completed _____
Contact: Name _____ Telephone # _____

3) Client _____
Project Address _____
Approximate \$ Value _____ Date: Started _____ Completed _____
Contact: Name _____ Telephone # _____

4) Client _____
Project Address _____
Approximate \$ Value _____ Date: Started _____ Completed _____
Contact: Name _____ Telephone # _____

5) Client _____
Project Address _____
Approximate \$ Value _____ Date: Started _____ Completed _____
Contact: Name _____ Telephone # _____

Company

Bid Title _____

Street

Bid # _____

City, State, Zip

Telephone #

Bid #05-20-21-02 "Cleaning of Boilers – Public Buildings"

WORK TO BE DONE

HB SMITH 28 SERIES SECTIONAL CAST IRON BOILERS

The maintenance cleaning and inspection requirements as noted in Manufacturers literature shall govern the process to be followed. The minimum work to be performed includes, but is not limited to the following:

Low water cutoff controls shall be removed and cleaned following Manufacturer's instruction. Clean and adjust high limit controls for proper functions. All steam boilers must have returns flushed once a year.

Heat exchanger cleaning – boiler requires cleaning and adjustment to eliminate over firing. Remove both side covers and cleanout covers. Clean passageways with wire brush. Burner must be removed and chamber vacuumed out. Vacuum out burner base and inspect all components. Replace any damaged or corroded parts. Inspect the cleanout cover insulation and rope seal and replace if damaged or deteriorated. Install and reseal cleanout covers with high temperature RTV silicone (red – rated for 500+ degrees). Inspect all roping and gaskets between sections for proper sealing and document items needing repair along with pricing for inclusion in report.

All H.B. Smith 28A and 28HE boilers manufactured after 1995 shall have graphite gaskets installed. Any boilers manufactured prior to 1995 shall have viton gaskets only. Heavily damaged or pitted port areas on section shall be priced out for replacement with a new section. All new Sections may have graphite gaskets installed on that section only vs.viton gaskets in a boiler manufactured prior to 1995. Install jacket covers and replace any badly damaged insulation. Inspect vent system for any signs of blockage, corrosion or leakage. Document and price any damaged vent system components required for inclusion in report.

Relief valve shall be tested and inspected for weeping. Document and price if required for inclusion in report.

GENERAL

All boiler rooms and grounds where cleaning operation takes place shall be left in a clean condition. The contractor shall remove all debris and foreign matter from premises.

TIME LIMIT

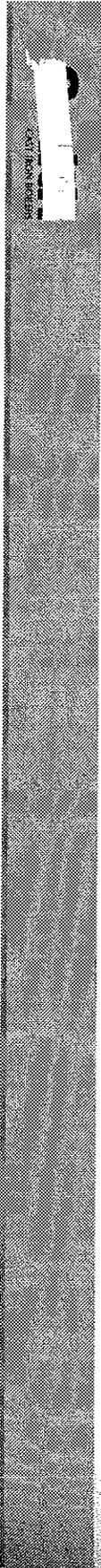
The contractor shall guarantee that all work under this project shall be completed by September 1st of each year. All work scheduled shall be approved by the Superintendent of Public Buildings. Work shall not begin until July 1st of each year.

AWARD

Bid may be awarded to one contractor for each type of boiler: 1) HB Smith Mills, 2) HB Smith 28 Series and 3) Knight-Lochnivar. Bidders must detail individual building charges on Proposal Pages 2 and 3 for the City's account purposes or their proposal will not be considered.

CONTRACT PERIOD

The contract shall be effective for one (1) year from date of award and may be extended by mutual agreement for one year at a time for a maximum of two (2) additional years contingent upon availability of funds.

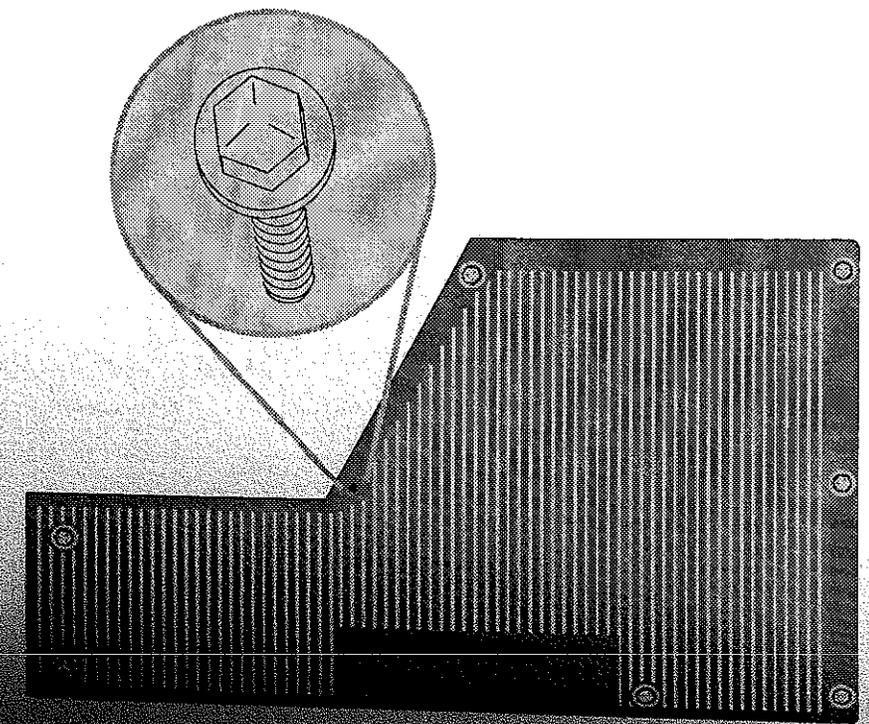


CLEANING SMITH'S MILLS BOILER

One reason the Mills boilers are so efficient is the **FLUE PASSAGEWAYS**. Unlike conventional cast iron boilers the Mills has comparatively small flues arranged with horizontal, vertical and lateral surfaces. This design allows rust and debris that accumulate on the waterside to fall into the mud drums. There they get swept away during normal boiler blowdown.

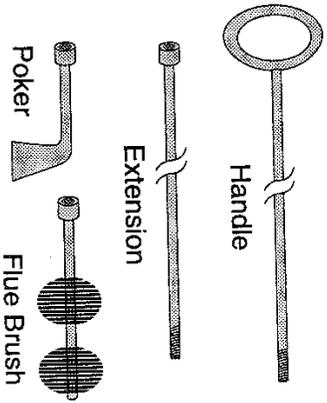
The fireside of the Mills boiler cleans up almost as easily. If the boiler has been out of service for a short time you may want to warm the boiler before cleaning. This will help any accumulated soot to turn to a fine powder and ease cleaning. It also will establish a draft in the chimney that can pull any dust or soot away from the person cleaning the boiler.

With the burner **POWER OFF**, start by unbolting and opening the front access doors. Opening and cleaning one side at a time minimizes any soot entering the boiler room. Look over the rope gaskets and insulation on the boiler doors. They should be intact and resilient for a proper seal. You will see that any flue damaged door gasket can easily be replaced using common hand tools.



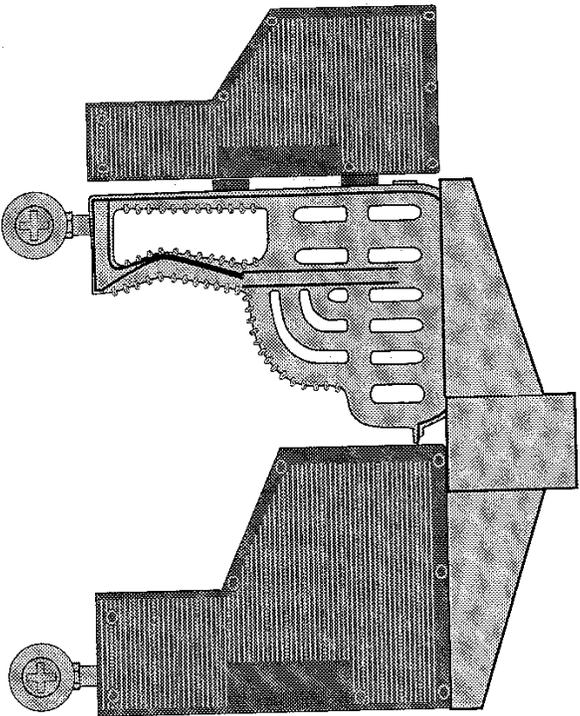
BOILER MAINTENANCE

Before brushing the boiler examine the interior with a drop light. Look for any unusual staining or discoloration that might indicate a leaking section or nipple. Examine the sections for sagging, an indication that the boiler has been overheated or run without water. Look at the **REFRACTORY**. See that the refractory remain unbroken and cemented in properly.



If the boiler is particularly dirty start cleaning by inserting a **POKER** into the upper flues. Twist it vigorously to knock out any accumulated soot. Be certain to reach between each section, rotating the poker and moving it front to back. Use **EXTENSIONS** to reach further back in the boiler.

Most well maintained systems come clean by sweeping away soot with a **FLUE BRUSH**. Use the flue brush to clean the heating surface of the water tubes, working from the top down. Be sure to brush each section working from back to front and from the top flue down. To complete the cleaning remove the accumulated debris on the floor of the firebox. Close the boiler doors, checking that the placement of the gasket, and bolt the doors tight to insure the absence of air leaks.



Boiler Blueprints

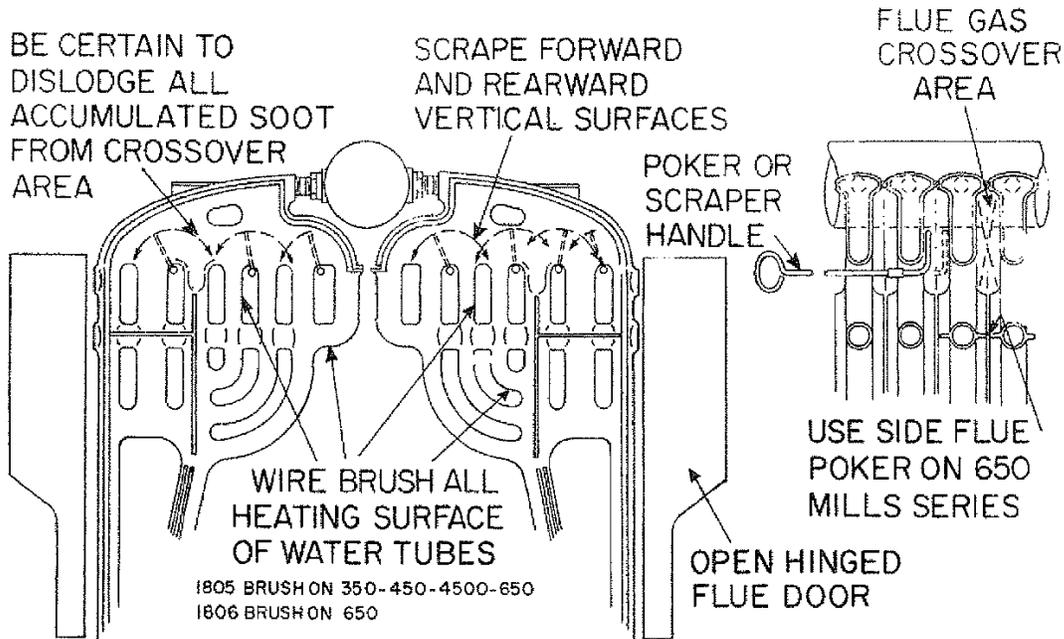
Cleaning Flues of Mills Boilers

One reason why Mills Water Tube Boilers are more efficient than ordinary boilers is because of the design of the flue passageways. Unlike the large return flue conventional cast-iron boilers, the Mills Boiler has many comparatively small flues which are so arranged that not only horizontal, but also vertical and lateral surfaces, absorb heat generated in the firebox.

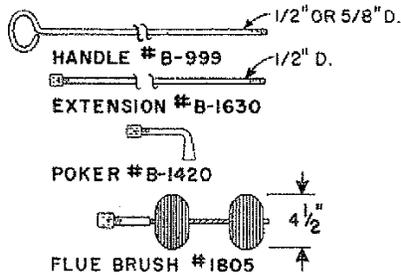
The flue gases first rise vertically between the sections and then pass laterally along the upper passageways to the upper side flue channels. While the vertical surfaces tend to be self-cleaning, it is obvious that the lateral

passages at the top of the boiler must be clean to afford free passage of the flue gases. Cleaning can easily be done by inserting the end of a poker through the upper part of the flues and twisting it vigorously (see sketches) so as to knock out any soot accumulated between the sections.

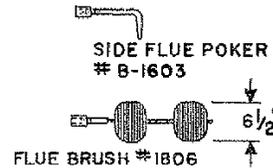
Frequency of cleaning is determined to a great extent by the type and quality of the fuel used. A boiler burning a good grade of coal would require comparatively little attention, while one fired with a poor soft coal would require more frequent cleaning to assure proper operation.



450 MILLS SERIES CLEANING TOOLS FURNISHED



650 MILLS SERIES SAME TOOLS AS 450 WITH THE ADDITIONS SHOWN BELOW:



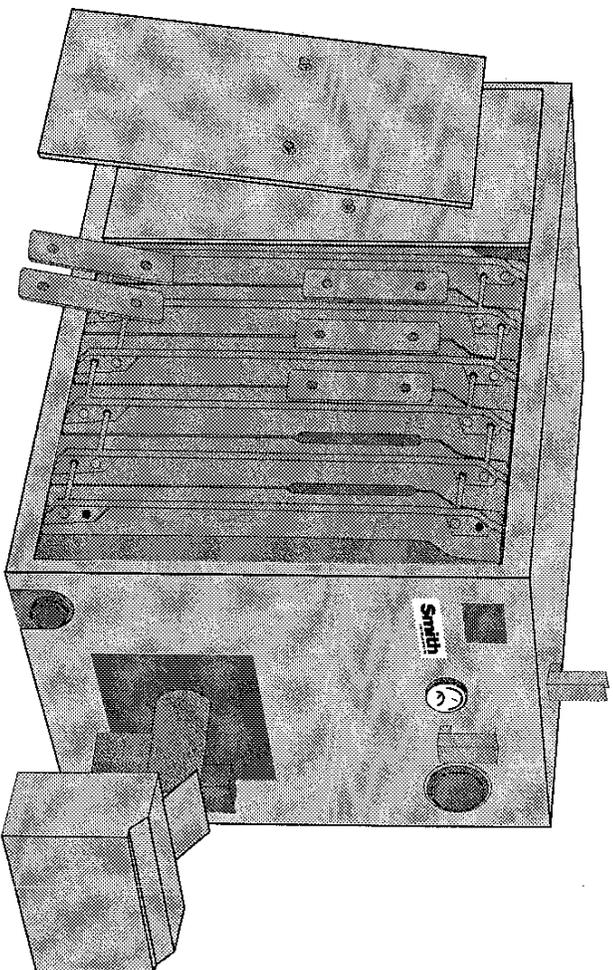
CLEANING WET BASE BOILERS

For wet base boilers, such as Smith's Model 28, accomplish cleaning in much the same way as the Mills. To access the boiler sections, remove the left side jacket panels. Working from the left side of the boiler allows full access to clean the pins near the oval port.

With the jacket panels open the **FLUE CLEANOUT PLATES** can be unbolted and removed. After removing each of the cleanout plates, insert a wire flue brush and aggressively brush the pins clean, working from the top down to the bottom. Inspect your job with a strong light.

Before replacing the cleanout plates, inspect their gaskets and replace any worn gaskets that might not seal completely. Sealing the cleanouts with silicone will insure a tight seal.

Debris from cleaning will fall into the firebox. Any dust from cleaning will be swept away the next time the boiler fires. Vacuum excessive debris from the firebox through the rear observation port. If a large amount of material gets swept from the boiler, have a technician remove the burner and then clean the firebox.



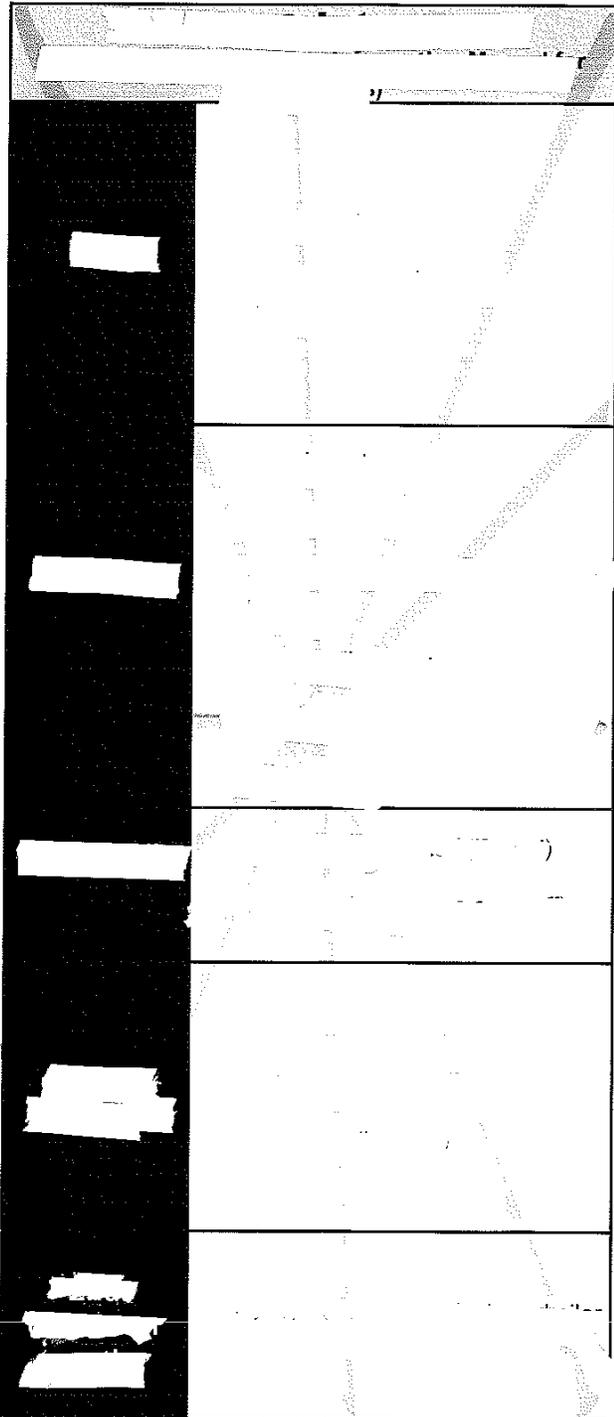
Appendix B. KNIGHT-LOCHINVAR BOILERS ANNUAL MAINTENANCE

Service technician (see the following pages for instructions)

General:

- Address reported problems
 - Inspect interior; clean and vacuum if necessary;
 - Clean condensate trap and fill with fresh water
 - Check for leaks (water, gas, flue, condensate)
 - Verify flue and air lines in good condition and sealed tight
 - Check system water pressure/system piping/expansion tank
 - Check control settings
 - Check ignition and flame sense electrodes (sand off any deposits; clean and reposition)
 - Check wiring and connections
 - Perform start-up checkout and performance verification per Section 10.
 - Flame inspection (stable, uniform)
 - Flame signal (at least 10 microamps at high fire)
-
- Clean heat exchanger
 - Remove and clean burner using compressed air only
 - Clean the blower wheel

ANNUAL



Maintenance

⚠ WARNING Follow the Service and maintenance procedures given throughout this manual and in component literature shipped with the boiler. Failure to perform the service and maintenance could result in damage to the boiler or system. Failure to follow the directions in this manual and component literature could result in severe personal injury, death, or substantial property damage.

⚠ WARNING The boiler should be inspected annually only by a qualified service technician. In addition, the maintenance and care of the boiler designated in Table 12A and explained on the following pages must be performed to assure maximum boiler efficiency and reliability. Failure to service and maintain the boiler and system could result in equipment failure.

⚠ WARNING Electrical shock hazard – Turn off power to the boiler before any service operation on the boiler except as noted otherwise in this instruction manual. Failure to turn off electrical power could result in electrical shock, causing severe personal injury or death.

Address reported problems

1. Inspect any problems reported by the owner and correct before proceeding.

Inspect boiler area

1. Verify that boiler area is free of any combustible materials, gasoline and other flammable vapors and liquids.
2. Verify that air intake area is free of any of the contaminants listed in Section 1 of this manual. If any of these are present in the boiler intake air vicinity, they must be removed. If they cannot be removed, reinstall the air and vent lines per this manual and the Knight XL Service Manual.

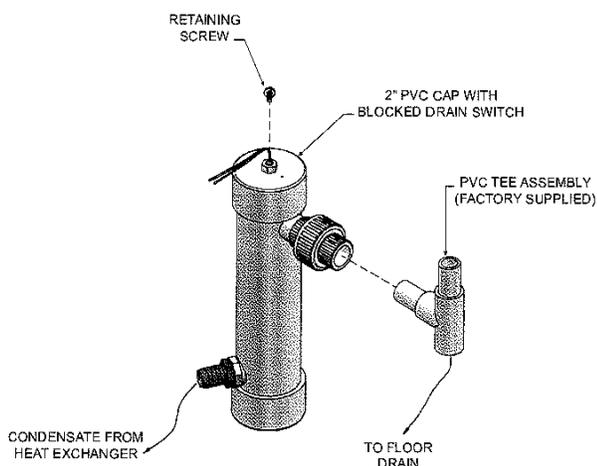
Inspect boiler interior

1. Remove the front access cover and inspect the interior of the boiler.
2. Vacuum any sediment from inside the boiler and components. Remove any obstructions.

Clean condensate trap

1. Inspect the condensate drain line, condensate PVC fittings, and condensate trap.
2. Remove the PVC cap retaining screw from the PVC cap (FIG. 12-1).
3. Remove the 2 inch PVC cap with the switch located at the top of the trap (FIG. 12-1).
4. Remove any sediment in the trap.
5. Fill with fresh water until the water begins to pour out of the drain.
6. Replace the cap. Press the cap onto the trap until the cap makes contact with the drain.
7. Replace the retaining screw.

Figure 12-1 Condensate Trap



⚠ WARNING The condensate trap must be filled with water during all times of boiler operation to avoid flue gas emission from the condensate drain line. Failure to fill the trap could result in severe personal injury or death.

Check all piping for leaks

⚠ WARNING Eliminate all system or boiler leaks. Continual fresh makeup water will reduce boiler life. Minerals can build up in sections, reducing heat transfer, overheating heat exchanger, and causing heat exchanger failure. Leaking water may also cause severe property damage.

1. Inspect all water and gas piping and verify to be leak free.
2. Look for signs of leaking lines and correct any problems found.
3. Check gas line using the procedure found in Section 7 - Gas Connections.

Maintenance

Flue vent system and air piping

1. Visually inspect the entire flue gas venting system and air piping for blockage, deterioration or leakage. Repair any joints that show signs of leakage. Verify that air inlet pipe is connected and properly sealed.
2. Verify that boiler vent discharge and air intake are clean and free of obstructions.

WARNING Failure to inspect for the above conditions and have them repaired can result in severe personal injury or death.

Check water system

1. Verify all system components are correctly installed and operational.
2. Check the cold fill pressure for the system. Verify it is correct (must be a minimum of 12 psi (82.7 kPa)).
3. Watch the system pressure as the boiler heats up (during testing) to ensure pressure does not rise too high. Excessive pressure rise indicates expansion tank sizing or performance problem.
4. Inspect automatic air vents and air separators. Remove air vent caps and briefly press push valve to flush vent. Replace caps. Make sure vents do not leak. Replace any leaking vents.

Check expansion tank

1. Expansion tanks provide space for water to move in and out as the heating system water expands due to temperature increase or contracts as the water cools. Tanks may be open, closed or diaphragm or bladder type. See Section 6 - Hydronic Piping for suggested best location of expansion tanks and air eliminators.

Check boiler relief valve

1. Inspect the relief valve and lift the lever to verify flow. Before operating any relief valve, ensure that it is piped with its discharge in a safe area to avoid severe scald potential. Read Section 6 - Hydronic Piping before proceeding further.

WARNING

Safety relief valves should be AT LEAST ONCE EVERY YEAR, by a licensed plumbing contractor or authorized inspection agency, to ensure that the product has not been affected by corrosive water conditions and to ensure that the valve and discharge line have not been altered or tampered with illegally. Certain naturally occurring conditions may corrode the valve or its components over time, rendering the valve inoperative. Such conditions are not detectable unless the valve and its components are physically removed and inspected. This inspection must only be conducted by a plumbing contractor or authorized inspection agency – not by the owner. Failure to re-inspect the boiler relief valve as directed could result in unsafe pressure buildup, which can result in severe personal injury, death, or substantial property damage.

inspected & TESTED

WARNING

the valve lever must be operated to ensure that waterways are clear. Certain naturally occurring mineral deposits may adhere to the valve, rendering it inoperative. When manually operating the lever, water will discharge and precautions must be taken to avoid contact with hot water and to avoid water damage. Before operating lever, check to see that a discharge line is connected to this valve directing the flow of hot water from the valve to a proper place of disposal. Otherwise severe personal injury may result. If no water flows, valve is inoperative. Shut down the boiler until a new relief valve has been installed.

2. After following the above warning directions, if the relief valve weeps or will not seat properly, replace the relief valve. Ensure that the reason for relief valve weeping is the valve and not over-pressurization of the system due to expansion tank waterlogging or undersizing.

Maintenance *(continued)*

Inspect ignition and flame sense electrodes

1. Remove the ignition and flame sense electrodes from the boiler heat exchanger access cover.
2. Remove any deposits accumulated on the ignition/flame sense electrode using sandpaper. If the electrodes cannot be cleaned satisfactorily, replace with new ones.
3. Replace ignition/flame sense electrode, making sure gasket is in good condition and correctly positioned.

Check ignition ground wiring

1. Inspect boiler ground wire from the heat exchanger access cover to ground terminal strip.
2. Verify all wiring is in good condition and securely attached.
3. Check ground continuity of wiring using continuity meter.
4. Replace ground wires if ground continuity is not satisfactory.

Check all boiler wiring

1. Inspect all boiler wiring, making sure wires are in good condition and securely attached.

Check control settings

1. Set the SMART SYSTEM control module display to Parameter Mode and check all settings. See Section 1 of the Knight XL Service Manual. Adjust settings if necessary. See Section 1 of the Knight XL Service Manual for adjustment procedures.
2. Check settings of external limit controls (if any) and adjust if necessary.

Perform start-up and checks

1. Start boiler and perform checks and tests specified in Section 10 - Start-up.
2. Verify cold fill pressure is correct and that operating pressure does not go too high.

Check burner flame

1. Inspect flame through observation window.
2. If the flame is unsatisfactory at either high fire or low fire, turn off boiler and allow boiler to cool down. Remove the burner and clean it thoroughly using a vacuum cleaner or compressed air. Do not use compressed air to clean burner if performed inside a building.
3. Remove the burner, reference FIG.'s 12-2 thru 12-4.
4. When replacing the burner, ensure gasket is in good condition and positioned correctly (FIG.'s 12-2 thru 12-4).

Figure 12-2 Burner Assembly - Model 400

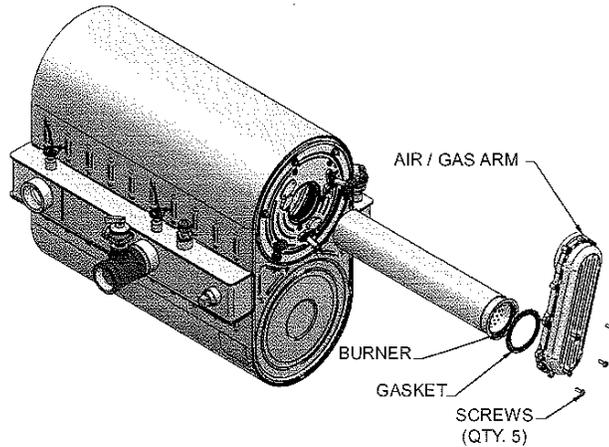


Figure 12-3 Burner Assembly - Model 501

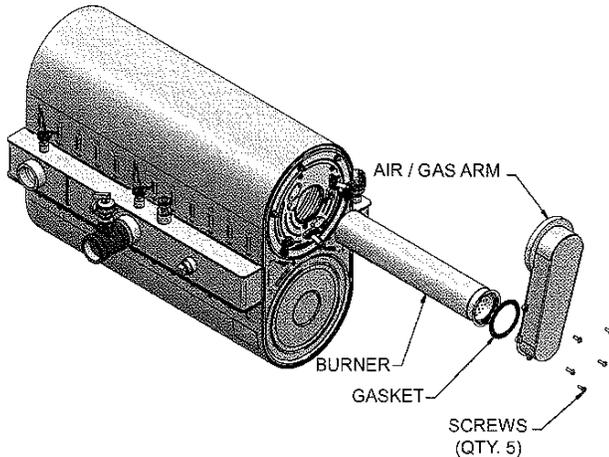
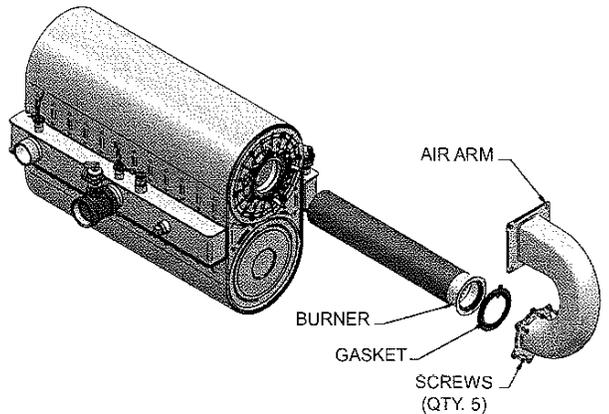


Figure 12-4 Burner Assembly - Models 601 - 801



Maintenance

Check flame signal

1. At high fire the flame signal shown on the display should be at least 10 microamps.
2. A lower flame signal may indicate a fouled or damaged flame sense electrode. If cleaning the flame sense electrode does not improve, ground wiring is in good condition, and ground continuity is satisfactory, replace the flame sense electrode.
3. See Section 3 - Troubleshooting in the Knight XL Service Manual for other procedures to deal with low flame signal.

Review with owner

1. Review the Knight XL User's Information Manual with the owner.
2. Emphasize the need to perform the maintenance schedule specified in the Knight XL User's Information Manual (and in this manual as well).
3. Remind the owner of the need to call a licensed contractor should the boiler or system exhibit any unusual behavior.
4. Remind the owner to follow the proper shutdown procedure and to schedule an annual start-up at the beginning of the next heating season.

Cleaning boiler heat exchanger

For recommended materials; including brush, appropriate extension(s), refractory cover, and detailed instructions see Table 12B - Heat Exchanger Cleaning Kits.

1. Shut down boiler:
 - Follow the "To Turn Off Gas to Appliance" instructions for the boiler in Section 10 - Startup.
 - Do not drain the boiler unless it will be exposed to freezing temperatures. If using freeze prevention fluid in system, do not drain.
2. Allow time for the boiler to cool to room temperature if it has been firing.
3. Remove the nuts securing the heat exchanger access cover to the heat exchanger and set aside.
4. Remove the heat exchanger access cover, burner, and gas/air arm assembly.

WARNING

The boiler contains ceramic fiber materials. Use care when handling these materials per instructions in the Service Manual. Failure to comply could result in severe personal injury.

5. Remove the condensate hose from the heat exchanger end. Connect a field supplied 3/4" diameter hose to a drain pan. Using field supplied means, cover the refractory in the back of the combustion chamber of the heat exchanger.

6. Use a vacuum cleaner to remove any accumulation on the boiler heating surfaces. Do not use any solvent.
7. Brush the heat exchanger while dry using a nylon bristle brush. **Caution:** DO NOT use a metal brush. Re-vacuum the heat exchanger.
8. Finish cleaning using a clean cloth dampened with warm water. Rinse out debris with a low pressure water supply.
9. Allow the heat exchanger to thoroughly dry.
10. Remove the field supplied rear refractory cover from the back of the combustion chamber of the heat exchanger and reassemble.
11. Close isolation valves on piping to isolate boiler from system. Attach a hose to the boiler drain and flush boiler thoroughly with clean water by using purging valves to allow water to flow through the water make-up line to the boiler.
12. Perform start-up and check-out procedures in the Check Flame and Combustion - Section 10 - Startup on pages 57 and 59 of this manual.
13. Replace the access cover and restore boiler to operation.

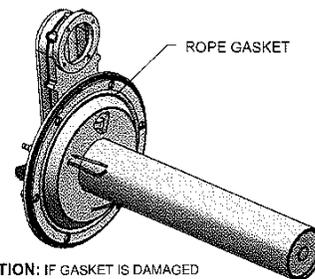
Table 12B Heat Exchanger Cleaning Kits

Model	Kit Number	Part Number	Component Description
400	KIT30063	CTN20005	Rear Refractory Cover
		MSC20083*	Nylon 4" Wheel Brush*
		MSC20084	3mm Allen Wrench
		MSC20086	1/4" x 24" Drill Extension
501 - 801	KIT30064	CTN20005	Rear Refractory Cover
		MSC20083*	Nylon 4" Wheel Brush*
		MSC20085	1/4" x 12" Drill Extension
		MSC20086	1/4" x 24" Drill Extension

CAUTION

* Do NOT use a metal brush. Only use the kit provided brush or an equivalent replacement nylon brush.

Figure 12-5 Rope Gasket - Heat Exchanger Door



CAUTION: IF GASKET IS DAMAGED DO NOT REUSE, THE HEAT EXCHANGER DOOR MUST BE REPLACED.

NOTICE

Rope gasket is intended for sealing combustion (FIG. 12-5). If damaged DO NOT reuse, the heat exchanger door must be replaced. Consult factory for replacement heat exchanger door (kit WTR3080 and WTR3086).

INSTRUCTIONS TO BIDDERS

Sealed bids will be received at the Office of the Purchasing Agent, 155 Deer Hill Avenue, Danbury, CT 06810 until the time and date specified on the cover sheet. Bids received later than the time specified will not be accepted. In the event of the closure of City Hall, bids will be opened on the following day that City Hall is opened. Amendments to or withdrawal of any section of the submitted bid received later than the time & date set for the bid opening will not be considered. Bid proposals must remain in effect for a minimum of 30 days unless otherwise noted elsewhere in the bid specifications.

BID DOCUMENTS: are available upon receipt of this invitation (if not attached) over the internet at the City's website: www.danbury-ct.gov. Adobe Acrobat reader is required to view this document. If you do not have this software you may download at no cost from Adobe at <http://www.adobe.com>. Businesses without internet access may obtain a copy of the bid by contacting the Purchasing Agent's Office, City Hall, 155 Deer Hill Avenue, Danbury, CT 06810, (203) 797-4571.

BID BONDS: if applicable, shall be in the amount of 5% of the total bid made out in favor of the City of Danbury and issued by a Surety company acceptable to the City of Danbury, and must accompany each bid. A certified check in the same amount may be submitted in lieu of the bid bond. Bids submitted without Certified Check or Bid Bond will not be accepted. The City of Danbury will not be held liable for the accrual of interest on any check held by the City in conjunction with this bid. All checks or bid bonds will be refunded to the unsuccessful bidders after award of the bid. The deposit check or Bid Bond of the successful bidder will be held in escrow until such time as the City determines that the bidder has or will meet their obligations as stated by the bid. If the bidder fails or refuses within a reasonable time after due notice that the contract has been awarded, to execute the same, an amount representing a loss to the City by reason of such failure shall be retained and paid into the City treasury.

REPLIES: whether bid or no bid, must have the bid number clearly identified on the outside of the envelope. Bidders not marking the envelopes with the Bid number and date/time of opening on the envelope will have no recourse against the City of Danbury or its employees. Such bidders run the risk of the bid being opened prior to the scheduled Bid Opening time. Once opened such bids are public record. Any alleged oral agreement made by a bidder or contractor with any agency or employee of the City of Danbury will be disregarded.

FREIGHT: Prices quoted shall be net delivery **F.O.B. Danbury, CT**. All bid prices must include prepaid delivery, assembly, and/or installation (ready for operation and/or use) of all equipment and/or materials to the individual locations(s) as designated by the Purchasing Agent. All bid prices are to be submitted on the sheets provided for this bid. Quantities and pricing are to be listed in accordance with these sheets.

QUESTIONS: Request for interpretation of any portion of the bid may be made by telephone to the Purchasing Agent at 203-797-4571. All replies will be given verbally and a copy of any such inquiry and advice (if deemed vital to the bid by the Purchasing Agent) will be made available to each prospective bidder in the form of an addendum. Bidder should check the City's website for addendums/updates 48 hours prior to the bid opening.

IDENTICAL BIDS: In the event of receipt of identical bids as to offerings, delivery, service, content, price, etc., the bid will be awarded in accordance with the information contained in the bid document, based on first received as to date and time of receipt of the bid.

NON-COLLUSION STATEMENTS: In order for bids to be considered, a non-collusive statement must be submitted with the bid. A sample non-collusive bid statement is attached. Bidders may elect to submit their own notarized non-collusion statement.

CONDITIONAL, QUALIFIED OR NON-RESPONSIVE BIDS/PROPOSALS: All bids/proposals shall be submitted in the form and manner as indicated by the bid documents and bid forms. Any proposal which is not submitted in the form and manner indicated by the bid documents or which contains information, statements, conditions, or qualifications which place conditions or qualifications on the proposal submittal for purposes of making an award, or which alter any proposal terms, conditions, specifications, or forms, which has not been previously approved by written addendum from the Purchasing Agent, or which does not meet legal requirements, shall be declared as a qualified, conditional, or non-responsive proposal and shall be rejected without further consideration. Any proposal response that does not fully respond to and comply with all detailed specifications or requests for information, including execution of proposal forms, may be declared "non-responsive" and recommended for rejection. The City of Danbury shall not be responsible for any errors or omissions by the Offeror.

UNBALANCED BIDS AND/OR EXCESSIVE LINE ITEM PRICES: The City reserves the right to reject any bids in which unit prices, in the sole opinion of the City, are unbalanced. In addition, where the City has decided to make an award, it further reserves the right to non-utilize a particular line item that in the sole opinion of the City is excessively priced, and

reserves the right to obtain that item from another source

CONTRACT: A response to an Invitation to Bid (ITB) is an offer to contract with the City of Danbury based upon the terms, conditions and specifications contained in the City's ITB. Bids do not become contract unless and until executed by the City.

TAXES: Omit all State and Federal taxes from the bid. The City of Danbury is exempt from the payment of taxes imposed by Federal government and/or the State of Connecticut.

OWNERSHIP OF DOCUMENTS: All documents, including drawings, plans, specifications, videotapes, or other documents or maps prepared by a contractor pursuant to any agreement arising from this bid shall become the property of the City of Danbury upon completion of the project or any termination of the project prior to the completion of the project.

PROPOSAL DOCUMENT: The Vendor may designate those portions of their proposal which contain trade secrets or other proprietary data. If a proposer includes data which is not to be disclosed to the public or which is to be used only for evaluation purposes, the proposer shall mark the title page with the legend:

"This response includes data that shall not be disclosed outside the City of Danbury and shall not be duplicated nor used, in whole or in part, for any purpose other than to evaluate this proposal. If, however, a contract is awarded to this proposer as a result of, or in connection with, the submission of this data, the City of Danbury shall have the right to duplicate, use or disclose the data to the extent provided in the resulting contract and/or by law. This restriction does not limit the City of Danbury's right to use information contained in this data, if it is contained in another source without restriction. The data subject to this restriction is contained in pages (insert numbers or other identification)".

LEGALITY: All bid offers for commodities, work, materials, or equipment hereunder shall comply in every respect with the laws, specifications and requirements of the State of Connecticut and the Federal government. Contractor will comply with the provisions of the Connecticut Fair Employment Practices Law.

LANGUAGE DISPUTES: Any disputes over the interpretation and/or meaning of any individual terms, conditions, and/or language within this Request for Bid/Proposal document shall be resolved by and at the sole discretion of the City Purchasing Agent in a manner that is in the best interest of, and best advantage to, the City of Danbury, provided any such interpretation shall be reasonable.

RESPONSIBILITY: The Contractor shall save the City of Danbury, its agents or employees, harmless from liability of any kind for all claims of labor payments and materials furnished for this work, and for use of any copyrighted or uncopyrighted composition, secret process patented or unpatented invention, article or application furnished or used in the performance of the contract of which the Contractor is not the patentee, assignee, or licensee. The successful bidder agrees to indemnify and hold harmless the City of Danbury, its agents and employees from any and all liability arising out of the successful bidders' operations, functions and/or supplied items.

The successful bidder, vendor, and/or contractor must protect all property of the City of Danbury (i.e. all floors, furniture, grass, land, etc.) from injury or other damage. Any damage so caused must be repaired by contractor/vendor at his/her own expense. At the completion of work, the vendor and/or contractor must remove from the premises all surplus materials and all debris created by same. The premises must be left in a broom-clean and finished condition acceptable to the owner or its agents. Successful bidder will furnish adequate protection from damage for all work and to repair damage of any kind, for which he or his workers are responsible, to the premises or equipment to his own work or to the work of other contractors.

DEFAULT: It shall be understood that a bidder supplying equipment and/or supplies will be considered to be in default if/when they have not delivered the item(s) within the time constraints listed in this document or subsequent purchase orders and/or contract. Bidders providing a service and/or construction will be considered to be in default if/when they have failed to meet the completion date set forth in this document or its subsequent contract and/ or purchase orders and/ or they have ceased work on the project for a period of fifteen (15) working days, cumulative or consecutive.

TRADE NAME REFERENCES: Any and all references to trade names, types, styles, model numbers, stock numbers or catalogs are intended to be descriptive only and not restrictive. The intention is to indicate to bidders the type and quality of the articles and or materials that will be satisfactory. When reviewing the information, it is the responsibility of the prospective bidder to inform the City of Danbury of any discrepancy that is found (i.e. number listed does not fit item description). Bids received on other makes or models with reference to other catalogs will be considered. The bidder is to clearly state in his/her bid exactly what he/she intends to furnish and to furnish with his/her bid a cut or illustration or other descriptive matter that will clearly indicate and give specification as to the product he/she proposes to furnish. Where a bid

is offered on an item other than the trade standard used in the specification the item should be identified on the bid form by entering the MAKE, TRADE NAME AND MODEL NUMBER. It is understood that any substitute and/or alternate that might be offered are guaranteed by the bidder to be of equal or better quality than is referenced in the bid. The item(s) must be equivalent as to function, basic design, type and quality of material, method of construction and any required dimensions. It shall be further understood that during original as well as subsequent shipments spot checks will be performed to insure that the items received are in fact the items offered in the bid. When received, should items/materials prove to be different from what was bid in any way, the bidder agrees to the return of the items and agrees to supply correct items (per bid specifications) at the bidders expense. In the event this return action is required, it is understood the bidder may be subject to removal from the City's approved bidder's list. Bidders are cautioned that surplus, seconds, factory rejects, floor samples, close outs or distressed items are not acceptable and shipments of substitutions, defective or shop-worn equipment will be returned for a full refund at the vendor's expense.

QUANTITY: The quantities and/or materials listed in the specifications/bid sheets may be increased or decreased by the City of Danbury or its designated representative based on actual need at the time the purchase orders are placed.

QUALITY: The City of Danbury reserves the right to reject any proposal in whole or in part offering equipment and/or materials and/or services that in its or its agent's opinion does not meet the quality standards desired. Such decision is final and not subject to further recourse by the bidder.

SAMPLES: forwarded by the bidder will be returned to the bidder at his request and expense. Requests for return of samples must be submitted in writing at the time the sample is given to the City of Danbury or its representative. Samples not returned to the bidder will be disposed of at the discretion of the City of Danbury or its designated representative. Large pieces of equipment submitted for evaluation and inspection are to be picked up by the bidder within 30 days of the bid opening date. The City of Danbury or its designated agent will dispose of items not picked up within 30 days.

AWARD: It is the intent to award this bid in its entirety to one bidder, however, the City reserves the right to award the bid line item by line item if it is deemed in its best interest to do so. In addition, bidders are advised that should budgetary constraints dictate, part, and/or all the items in this bid may be rejected. This decision shall be considered final and not subject to recourse by the bidder.

In determining the lowest or highest responsible bidder, the City reserves the right to consider, in addition to price, the compatibility, quality, cost of maintenance and availability of parts, experience and/or past performance of the bidder, sufficiency of the financial resources of the bidder as relates to the offerings as well as the ability of the bidder to provide future maintenance and service.

Documents previously submitted to the City of Danbury will not be considered as satisfying submission requirements for this bid.

No bidder can claim any contract rights by virtue of bidding alone. Awarding of the contract means actual written notice by letter and a properly executed purchase order to the bidder or bidders to whom the bid has been awarded.

OPTION TO RENEW: This bid, once awarded, may be extended by mutual consent for up to two (2) additional one-year periods.

BONDS (if applicable):

Performance Bond: The Contractor, when awarded the Bid, must submit within 10 days of the bid award, and before beginning the work or signing a contract, a Performance Bond amounting to one hundred percent (100%) of the total amount of the bid. Said performance bond must be in favor of the City of Danbury and executed by a surety company authorized to do business in the State of Connecticut. The City of Danbury reserves the right to retain the Bid Bond or Certified Check on bids below \$25,000.00 as a Performance Bond. On bids of \$25,000.00 or more the Performance Bond may be furnished in the following manner: Performance Bond, Surety Bond, Certified Check, Bank Check, Savings Account in both the City & Vendor's name or Letter of Credit.

Maintenance Bond: The contractor, upon signing a contract and before beginning the work, must submit to the Purchasing Agent a Maintenance Bond to guarantee that if defects in either labor or materials become evident within one year after completion and acceptance of work will be fixed at no cost to the City of Danbury. The maintenance bond may be included as a portion of the Performance Bond or as a separate bond. If it is issued as a separate bond said maintenance bond must be in favor of the City of Danbury and issued by a surety company

licensed and authorized to do business in the State of Connecticut.

Labor and Material Bonds: Pursuant to Section 49-41(a) of the Connecticut General Statutes, as may be amended from time to time, a project for the construction, alteration or repair of any public building or public work, where the contract award amount is in excess of \$100,000.00, a labor (payment) and material bond in the full amount of the contract must be furnished to the City with a surety or sureties satisfactory to the City. Said bonds shall be filed with the Purchasing Agent on or before the award date. Any such bond shall have as principal the name of the person awarded the contract.

Consent for Release of Final Payment: AIA Document G707 & G706, or equivalent, must be signed and returned by the Surety Company before final payment will be released to the contractor.

INSURANCE:

Certificate of Insurance: All insurers must have an AM Best rating of A-V11 or better and admitted to do business in the State of Connecticut. All insurance policies must include a Waiver of Subrogation whereby the insured waives its right to subrogate against the City, its subsidiaries, employees, volunteers, directors and officers. Proof of proper insurance coverage, Workers Compensation Insurance, Liability and Property damage, and Vehicle Insurance shall be filed with the City of Danbury Purchasing Agent within 10 days after the award of the bid. The Certificate of Insurance must name the City of Danbury, 155 Deer Hill Avenue, Danbury, CT 06810, its subsidiaries, employees, volunteers, directors & officers as the "additional insured" and filed with the Purchasing Agent prior to commencement of work. Renewal Certificates of Insurance must be mailed to the Purchasing Agent 10 days prior to the expiration of the required coverage.

Workman's Compensation Insurance: The Contractor shall take out and maintain during the life of the contract adequate Workman's compensation Insurance for all the employees employed on said work. In case any class of employees or subcontractors is engaged in hazardous work under the contract at the site of the work is not protected under the Workman's Compensation statute, the contractor shall provide Workman's Compensation Insurance for the protection of employees not otherwise protected.

Liability Insurance: The Contractor shall take out and maintain for the life of the contract, adequate public liability insurance insuring against liability to persons not employed by him in an amount of not less than \$1,000,000.00 for injuries, wrongful death to any one person and subject to the limit for each person in an amount of not less than \$2,000,000.00 on account of one accident and property damage insurance in an amount of not less than \$1,000,000.00.

Vehicle Insurance: The Contractor shall take out and maintain for the life of the contract, adequate automotive/truck or other vehicle insurance with minimum coverage of \$1,000,000.00 each for both liability and under insured and uninsured motorist as well as any other coverage required by the State of Connecticut or requested by an official of the City of Danbury as relates to the contract.

Additional Security: The City of Danbury reserves the right to require successful bidders to enter into and such security arrangements as are deemed necessary to protect the City of Danbury, its property and goods.

PERMITS: The successful bidder agrees to obtain all work/building permits as might be required. The cost of obtaining such permits is the responsibility of the bidder. The City of Danbury reserves the right to waive local permit fees. In addition, it shall be understood that where property lines are to be considered, bidders are to verify said lines and measurements with proper City Officials prior to commencement of work. It is to be understood that any/all specifications and/or plans or drawings contained in or developed as a result of the bid process are and shall be presented subject to the approval of the City of Danbury planning, zoning and building officials and that awards made prior to said approval are subject to cancellation.

PREVAILING WAGE: When the State of Connecticut Prevailing Wage Rate is applicable to the bid, the successful bidder must submit a Certified Payroll Record prior to any request and/or invoice for payment.

SAFETY:

Machine and/or Equipment Hazard Assessment and Safety Training: Upon delivery of machines and/or

equipment, suppliers are required to provide to the end-user employees, at no additional charge, a training session, which will emphasize hazard awareness and assessment and the safe use of such machinery/equipment.

Occupational Safety and Health Act of 1970: Seller shall warrant that the machinery, equipment or other materials covered hereby shall upon delivery to the City of Danbury, be in compliance with the standards required by said Act and any updates as pertain to or reference said Act as well as the standards required by comparable State and local laws, if any, for such machinery, equipment or other materials in effect at the time of delivery.

Machines and/or Equipment Lockout/Tag out: In an effort to comply with OSHA's final rule on the control of hazardous energy sources, vendors must warrant that any and all machines and/or equipment as is covered under this bid will be supplied and/or installed equipped with lockout/tag out devices as prescribed by OSHA.

Toxic Substance Control Act (PL94-469): Seller warrants that each and every chemical substance constituting or contained in the products sold or otherwise transferred to the City of Danbury under this bid and subsequent purchase orders is not on the list of prohibited chemical substances compiled and published by the Administrator of the Environmental Protection Agency pursuant to Act PL94-469 and are otherwise in compliance with said Act.

Hazardous Materials: Any materials required by this bid and subsequent purchase orders that are hazardous under federal, state, or local statute, ordinance, regulation, or agency order will be packaged, labeled, marked and shipped by the seller to comply with all federal, state and local regulations then in effect including but limited to the provisions of the Hazardous Materials Transportation Act and Regulations promulgated there under and will further comply with any special requirements and any policies and procedures of the City of Danbury relating to the purchase of hazardous materials as might be noted on subsequent purchase orders or otherwise communicated to seller in writing.

Material Safety Data Sheets: Shall be provided by the Seller upon delivery to the City of Danbury of any goods having constituents listed in the following references - OSHA 1910, ACHIG Current Threshold Values, DOT HazMat Table 49, IARC Carcinogen List, National Toxicology Program Carcinogen List, and/or Radioactive Materials. These Material Safety Data Sheets must be consistent with and include information required by the OSHA Hazard Communication Standard published as 29 CFR 1910.1200, as the same may be amended or supplemented from time to time.

Asbestos: Bidders are advised that asbestos-containing material may be located in the boiler rooms, pipe tunnels, storage areas and various portions of City buildings. Before proceeding on any contractual work on City buildings or their interiors, it is mandatory that bidders familiarize themselves with the asbestos-containing material and that said material be considered as a health hazard and all precautionary measures according to the Ahera Rules & Regulations be observed. It is the bidder's responsibility to notify all employees and/or subcontractors of this notification.

SUBCONTRACTORS: The successful bidder shall not employ any subcontractor to fulfill any of the duties herein specified without express, prior written approval of the City of Danbury or its designated agent.

EEO: The successful bidder shall provide any/all additionally required, affirmative action statements, fair employment plans and non-discrimination programs and statement as might be required by the City of Danbury. In connection with the execution of this bid, subsequent purchase orders and/or contracts, the seller shall not discriminate against any employee or applicant for employment because of age, race, religion, color, sex or national origin. Bidders must comply with all rules & regulations of the Department of Labor with regard to Equal Employment Opportunities as pertains to municipalities.

TERMINATION OF CONTRACT: Any contract entered into by the City and the successful bidder shall provide that the City may terminate the contract upon thirty (30) days notice to the bidder.

The City of Danbury reserves the right to award or reject any or all bids, or any portion thereof, to waive technicalities, and to award the bid and/or contracts to one or more bidders submitting essentially identical proposals and, that in the City's judgment, will best serve the public interest.

The terms and conditions of these "Instructions to Bidders" are made a part this bid.

SAMPLE FORM

Bid # _____

NON-COLLUSION AFFIDAVIT

STATE OF _____ COUNTY OF _____

I, _____ being first duly sworn, deposes and says that:

1. I am _____ of _____, the bidder that has submitted the attached request for bid for _____;
2. I am fully informed respecting the preparation and contents of the attached bid and of all pertinent circumstances respecting such bid;
3. Such bid is genuine and is not a collusive or sham bid;
4. Neither the bidder nor any of its officers, partners, owners, agents, representatives, employees or parties of interest, including this affiant, has in any way colluded, conspired, connived or agreed directly or indirectly with any other bidder, firm or person to submit a collusive or sham bid in connection with the work for which the attached bid has been submitted nor has it in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other bidder, firm or person to fix the price or prices in the attached bid or of any other bidder, or to fix any overhead, profit or cost element of the bid price or the price of any bidder, or to secure through any collusion, conspiracy, connivance or unlawful agreement any advantage against the City of Danbury or any person interested in the proposed bid; and
5. The price or prices quoted in the attached bid are fair and proper and are not tainted by any collusion, conspiracy, connivance or unlawful agreement on the part of the bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

Signed _____

Title _____

Subscribed and sworn to before this

_____ day of _____, 20_____.

My commission expires _____

SAMPLE FORM

Bid # _____

CONSENT OF SURETY COMPANY TO RELEASE FINAL PAYMENT

- City
- Architect
- Contractor
- Surety
- Other

PROJECT/BID NUMBER:

TO: City of Danbury
 Attn: Purchasing Agent
 155 Deer Hill Avenue
 Danbury, CT 06810

CONTRACTOR: _____

In accordance with the provisions of the contract between the City of Danbury and the contractor as indicated above, the (insert name & address of Surety Co.)

_____, SURETY COMPANY on bond of
 (insert name & address of Contractor) _____

_____, CONTRACTOR, hereby approves of the final payment to the Contractor, and agrees that final payment to the Contractor shall not relieve the surety Company of any of its obligations to the City of Danbury as set forth in the Surety Company's bond.

Subscribed and sworn to before this
 _____ day of _____, 20____

 Notary Public

 Surety Company

 Authorized Representative's Signature

 Title

My commission expires _____

BID SUBMITTAL CHECKLIST

THE FOLLOWING ITEMS ARE TO BE INCLUDED WITH YOUR BID SUBMITTAL:

- BID COVER SHEET – WITH YOUR COMPANY INFORMATION COMPLETED
- PROPOSAL SHEET(S), IF SEPARATE FROM THE BID COVER SHEET
- EXCEPTIONS PAGE
- REFERENCES PAGE
- BID BOND
- CERTIFICATE OF INSURANCE – PLEASE REMEMBER THAT THE CITY OF DANBURY IS TO BE LISTED AS AN ADDITIONAL INSURED ON THE POLICY
- NON-COLLUSION AFFIDAVIT

PLEASE NOTE REPLIES: whether bid or no bid, must have the bid number clearly identified on the outside of the envelope. Bidders not marking the envelopes with the Bid number and date/time of opening on the envelope will have no recourse against the City of Danbury or its employees. Such bidders run the risk of the bid being opened prior to the scheduled Bid Opening time. Once opened such bids are public record. Any alleged oral agreement made by a bidder or contractor with any agency or employee of the City of Danbury will be disregarded.